



TECHNICAL DATA SHEET

FOR THE ULTIMATE
ROOFING PROTECTION

Bullet Roof Rapid is a new formulation of the Bullet Roof® Liquid polyurethane system.

Due to the demand for a faster curing membrane with more thixotropic qualities we have developed Bullet Roof® "Rapid" which will cure fully in times from 90 minutes. Minimal bubble formation even when applied at high consumption rates means thick coats can be achieved in one application.

Bullet Roof Rapid can be applied in the morning to a dormer or garage roof and walked on in the afternoon, even in colder temperatures.

Bullet Roof Rapid Must be used in conjunction with Bullet Roof® "Trigger" accelerator.

Beneficial Properties of Bullet Roof® Rapid

- Rapid cure time. Trafficable from 90 minutes dependant on temperature.
- Highly Flexible and elastic.
- Non Toxic after full cure.
- Remains Elastic even down to -40 deg C.
- Can be applied easily onto vertical features and details.
- Vapour permeable once cured allowing any trapped moisture to escape.
- Can be installed with or without reinforcement
- 25yr life expectancy.

Bullet Roof Rapid has a minimum consumption rate of 1.5kg per m². Consumption rate is dependent on the substrate/surface to be coated. An additional reinforcement layer is required over some substrates. For consumption

information and reinforcement requirements contact our technical department.

Bullet Roof® "Rapid" can be applied over Felt, Asphalt, concrete, timber, fibre cement, galvanised steel. Contact our technical department for information regarding other surfaces/substrates.

Always fully reinforce Bullet Roof® "Rapid" when refurbishing felt, mineral felt and asphalt.

Temperature variations effect viscosity.
Cold temp equals thicker.
Warmer temp equals increased fluidity.

Standard concrete substrate conditions (no primer needed):

- Hardness: $R_{28} = 15\text{Mpa}$
- Humidity: $W < 10\%$
- Temperature: $5\text{-}35^{\circ}\text{C}$
- Relative humidity: $< 85\%$

Primer selection for special condition and substrates:
Please refer to the Primer Selection Table

Application Procedure:

Clean the substrate using high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must also be removed. Use Mega Mastic to repair any fissures or small cracks in the surface.

Priming:

Apply the required primer, contact Bullet Building Products for primer selection.

Mixing:

Trigger - Always shake the contents prior to adding. Use a low speed (300rpm) mixer. Mix thoroughly taking care not to introduce air bubbles. Bullet Roof® "Rapid" (Part A) must be used in conjunction with Trigger (Part B).

Ratios:

1x 25kg unit Bullet Roof® "Rapid" / 1 x 1kg unit Trigger.
1x 6kg unit Bullet Roof® "Rapid" / 1 x 0.25kg unit Trigger.

Application:

Apply with roller, brush or airless spraying (200-250 bar) in one or two coats. Do not exceed 48 hours between coats.

Minimum Consumption Rate:

1.5kg/m² in one coat.

Cleaning:

Rollers will not be re-usable. Use a solvent based cleaner to clean tools.

Packaging:

6kg and 25kg units.

Shelf Life:

Can be kept for 12 months minimum in the original unopened units in dry places and at temperatures of $5\text{-}25^{\circ}\text{C}$. Once opened, use as soon as possible.

Safety Information:

Contains volatile flammable solvents. Apply in well-ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. Keep in mind that solvents are heavier than air so they float near the floor. The MSDS (Material Safety Data Sheet) is available on request.

Technical Specifications

In liquid form (before application):

Property	Units	Method	Specification
Viscosity	cP	ASTM D2196-86, @ 25°C	3000-6000
Specific Weight	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811, at 20°C	1.5
Flash Point	°C	ASTM D93, closed cup	42
Tack Free Time	hours	-	6
Recoat time	hours	-	6-24

NOTE: Like all polyurethane materials, it is sensitive to temperature variations when considering viscosity. Viscosity measurements are carried out at 25 °C according to ASTM D2196-86. Viscosity increases inversely with temperature.

Temperature (°C)	Viscosity (cP)
10	8900
20	6700
25	4050
30	3500
50	1200

In cured form (after application):

Property	Units	Method	Specification
Service Temp	°C	-	-40 to 60
Hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	60
Tensile strength at break @ 23°C	Kg/cm	ASTM D412 / EN-ISO-527-3	30 (3.0)
Elongation @ 23°C	%	ASTM D412 / EN-ISO-527-3	>800
Water vapor transmission	gr/m ³	ASTM E96 (Water Method)	0.8
Water Absorption	gr/cm ³	Internal Method	1
QUV Accelerated Weathering Test	-	ASTM G53	passed (2000 hours)